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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/486,264	05/12/2000	GREGOR SCHWEGLER	2046/48639	3695

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EXAMINER

KILKENNY, TODD J

ART UNIT PAPER NUMBER

1733

DATE MAILED: 11/29/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/486,264

Applicant(s)

SCHWEGLER, GREGOR

Examiner

Todd J. Kilkenny

Art Unit

1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,8,9,11 and 14-16 is/are rejected.
- 7) ☒ Claim(s) 3-7,10,12 and 13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Drawings***

1. The subject matter of this application admits of illustration by a drawing to facilitate understanding of the invention. Applicant is required to furnish a drawing under 37 CFR 1.81. No new matter may be introduced in the required drawing. Although, drawings were found in WO 99/10613 to which this application is a 371, applicant is requested to provide separate drawings submitted for examination in this U.S. application.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 8, 9, 15, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Hertzberg.

In U.S. patent 4,966,802, Hertzberg teaches composites of fiber reinforced resin elements joined by adhesive. Referring to Figures 3 and 4, Hertzberg teaches a panel (31) having reinforcing members (33) attached thereto. The reinforcing members (33) are made of a stack of laid-up plies (41) of fiber reinforced resin composites and are formed into T-shaped members by slitting along one edge of the stack (slit 43) and bending outwardly the slit ends to form a pair of flanges (45) (Column 5, line 62 –

Column 6, line 12 and Column 3, lines 4 – 15). As broadly identified in applicant's claim 1, the panel (31) is recognized as an end element wherein the flanges of the T-shaped member terminate.

As to claim 2, in a separate embodiment, Hertzberg teaches forming an I-shaped reinforced member where one end terminates in a panel (11) and the second end terminates in a stiffening plate (17) wherein both panel (11) and stiffening plate (17) are recognized as reading on "end elements".

As to claims 8, 9, 15, and 16, Hertzberg teaches mechanical fasteners (29 and 101) that juxtapose the flanges of the shaped reinforcing members. Hertzberg teaches said mechanical fastener to be a rivets (See Figures 2 and 7, Column 7, lines 45 – 55). The point at which the mechanical fastener connects the panel to the flange is recognized as applicant's "force-introduction point" and it is inherent that it would be a threaded bore so as to provide the proper connection of the rivet between the panel (11 or 31) and reinforcing member (13 or 33).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hertzberg.

Hertzberg teaches splitting at least one end of a reinforcing member (33) to form a t-shape wherein each flange of the t-shape has approximately the same thickness (see Figure 4). Furthermore, Hertzberg teaches bringing said split ends of the reinforcing member into connection with a panel (31) and adhesively securing thereto (Figure 3, adhesive layer 39). As written the panel (31) of Hertzberg is recognized as reading on both the supporting element and ending element as defined in applicant's claim 11. Hertzberg fails to specifically teach cutting the carbon panel to an appropriate length. However, as diagrammed in Figure 4, the reinforced member (33) is comprised of a plurality of plies (41) having the same length. It would have been obvious to one of ordinary skill in the art at the time of the invention to cut the plies of Hertzberg so as to achieve the same length as diagrammed and needed since cutting composites to the appropriate size is a manufacturing step that is considered well known in the art and only the expected results would be achieved.

As to claim 14, Hertzberg is silent as to splitting in the fiber direction of the plies. However such is well known and would have been obvious to one of ordinary skill in the art at the time of the invention to ensure that the integrity and strength of the reinforcing member isn't adversely affected by splitting against the grain.

#### ***Allowable Subject Matter***

6. Claims 3 – 7, 10, 12 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art fails to teach or otherwise suggest the end element having retaining slots located wedge wise relative to one another wherein the strips of the reinforcing member are inserted.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Conner (US patent 5,313,749) and Muller (US patent 5,471,8120) are cited as both teaching to reinforce beam and other concrete structures with cables in a pretensioned state. Meier et al is cited as teaching a method of securing a CFK reinforcing lamina to a structural component in slacked or prestressed manner (Column 1, lines 5 – 11) by anchoring each end of the reinforcing lamina to the structural component using mechanical fastening means and affixing said reinforcing lamina to the underside of the structural component in a conventional manner (i.e. using adhesive).

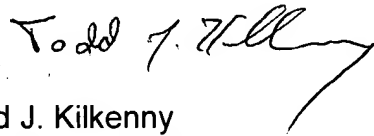
### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Todd J. Kilkenny** whose telephone number is **(703) 305-6386**. The examiner can normally be reached on Mon - Fri (9 - 5).

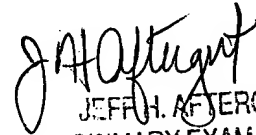
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Ball can be reached on (703) 308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7718 for regular communications and (703) 305-3599 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Todd J. Kilkenny  
November 5, 2001



JEFF H. AFTERGUT  
PRIMARY EXAMINER  
GROUP 1300